

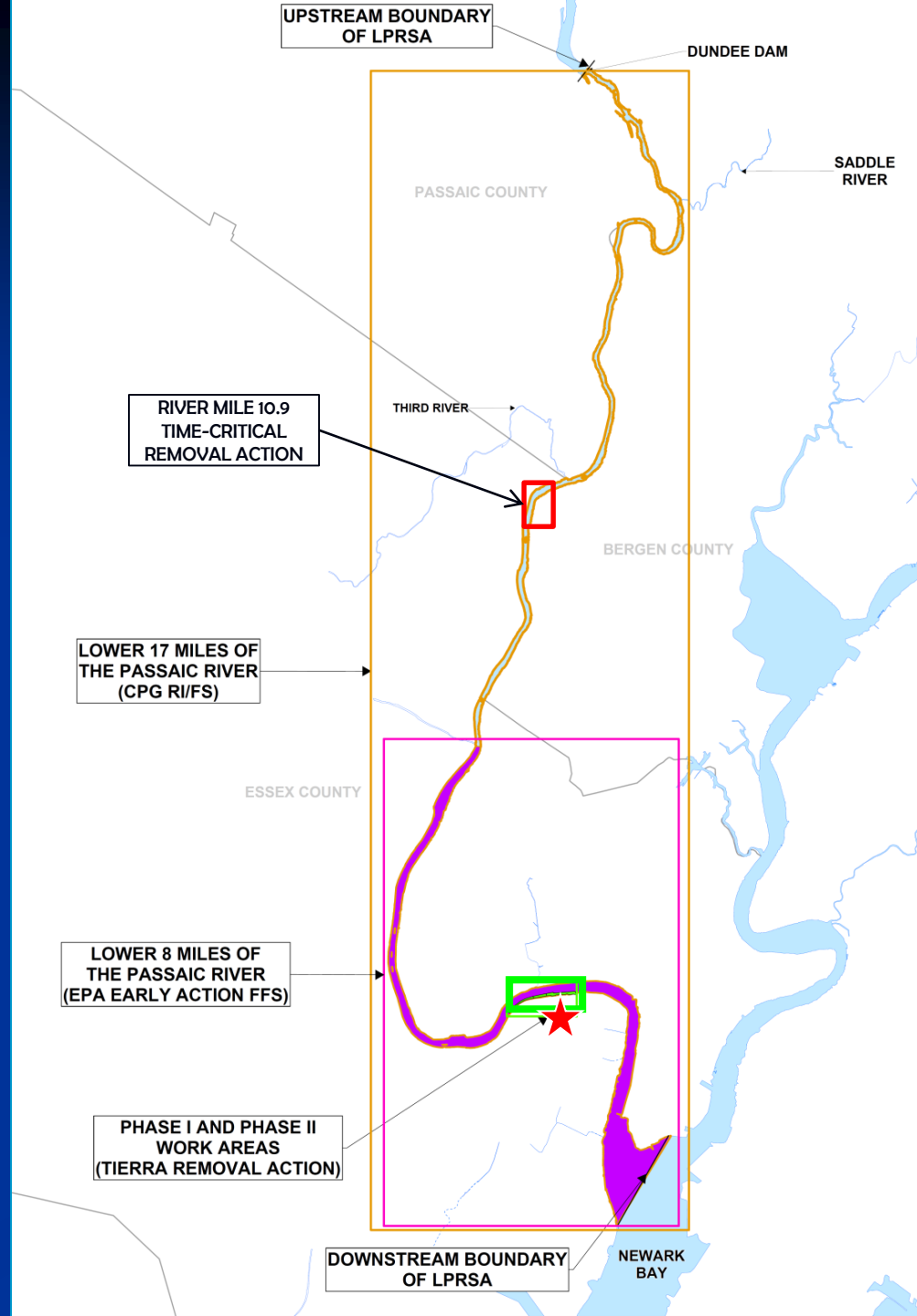
# Second Supplemental Sediment Sampling Program

## Preliminary Overview of Results

Lower Passaic River Study Area  
17-mile Remedial Investigation/Feasibility Study

January 8, 2015

# The Lower Passaic River Study Area (LPRSA)



# LPRSA

## Sediment Sampling Events

Dates	Program	Number Locations/ Type of Samples	Extent
July to December 2008	Low Resolution Coring (LRC)	106 surface locations	Full LPRSA Depth to refusal
Oct/Nov 2009 August 2010	Benthic Sediment Sampling	131 surface locations	Full LPRSA Surface only
January to February 2012	First Supplemental Sampling Program (SSP1)	85 surface locations	Full LPRSA 2.5' deep cores
September to October 2013	SSP2	76 surface locations	Above RM 7.2 LRCs to refusal

Note: Surface here refers to the top 0 to 6 inches of sediment. Low Resolution Cores (LRCs) are generally analyzed every 6 to 12 inches to a specified depth.

# Why SSP2?

- Prior to SSP2, there were approximately 200 surface sediment samples below RM 8 and 130 above RM 8
  - More information was needed to understand the river above RM 8
- Now there are about 200 surface sediment sample locations both above and below RM 8
  - Good coverage of the entire LPRSA

# Data Quality Objectives of SSP2

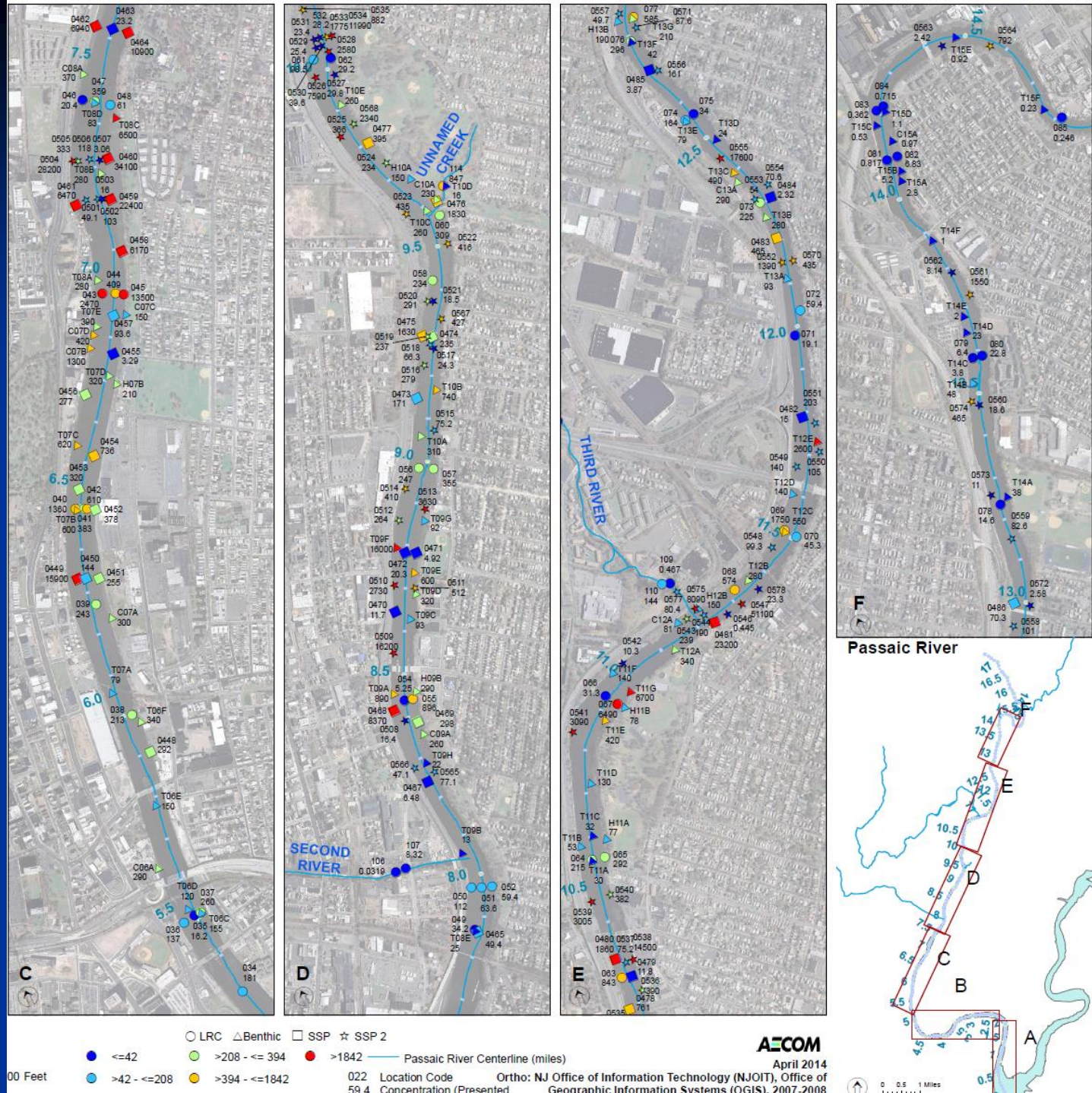
- Provide additional characterization of the nature and extent of sediment chemistry and fill data needs above RM 8, as identified by USEPA
- Provide data to support system understanding, sediment surface concentration mapping, and sediment transport and contaminant fate and transport model parameterization

Source: September 2013 QAPP for SSP2



# All sediment sample locations above RM 8

- Each location may have samples collected at multiple depths
- Samples located on both sides of the river and in the channel



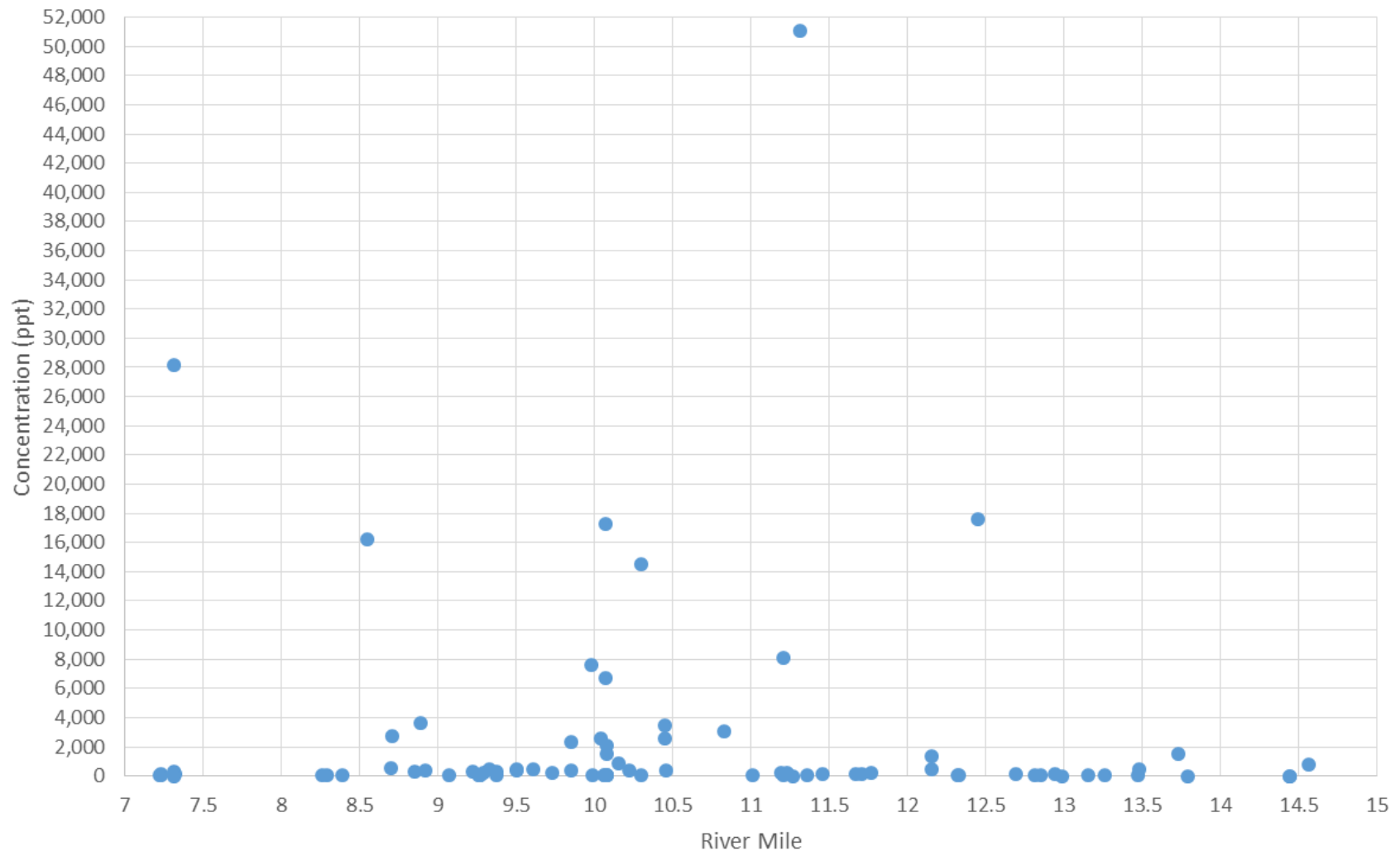


# All sediment sample locations above RM 8 (continued)



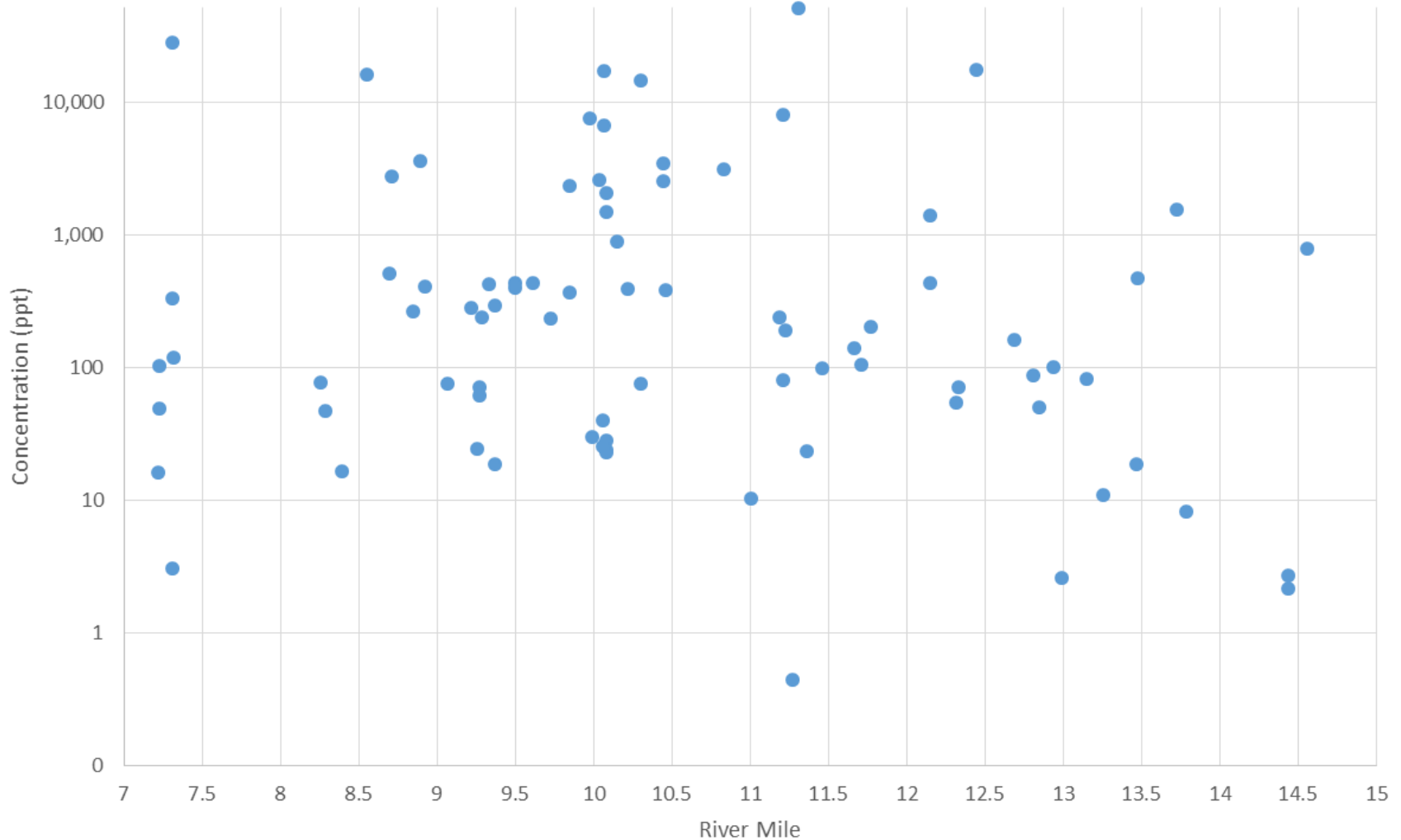
Figure 3-3.a LRC, Benthic, LRC SSP, and LRC SSP 2  
Surficial Analyte Concentration: 2,3,7,8-TCDD (ng/kg)  
0 - 0.5 ft  
(Page 2 of 2)

## Concentrations – Linear Scale





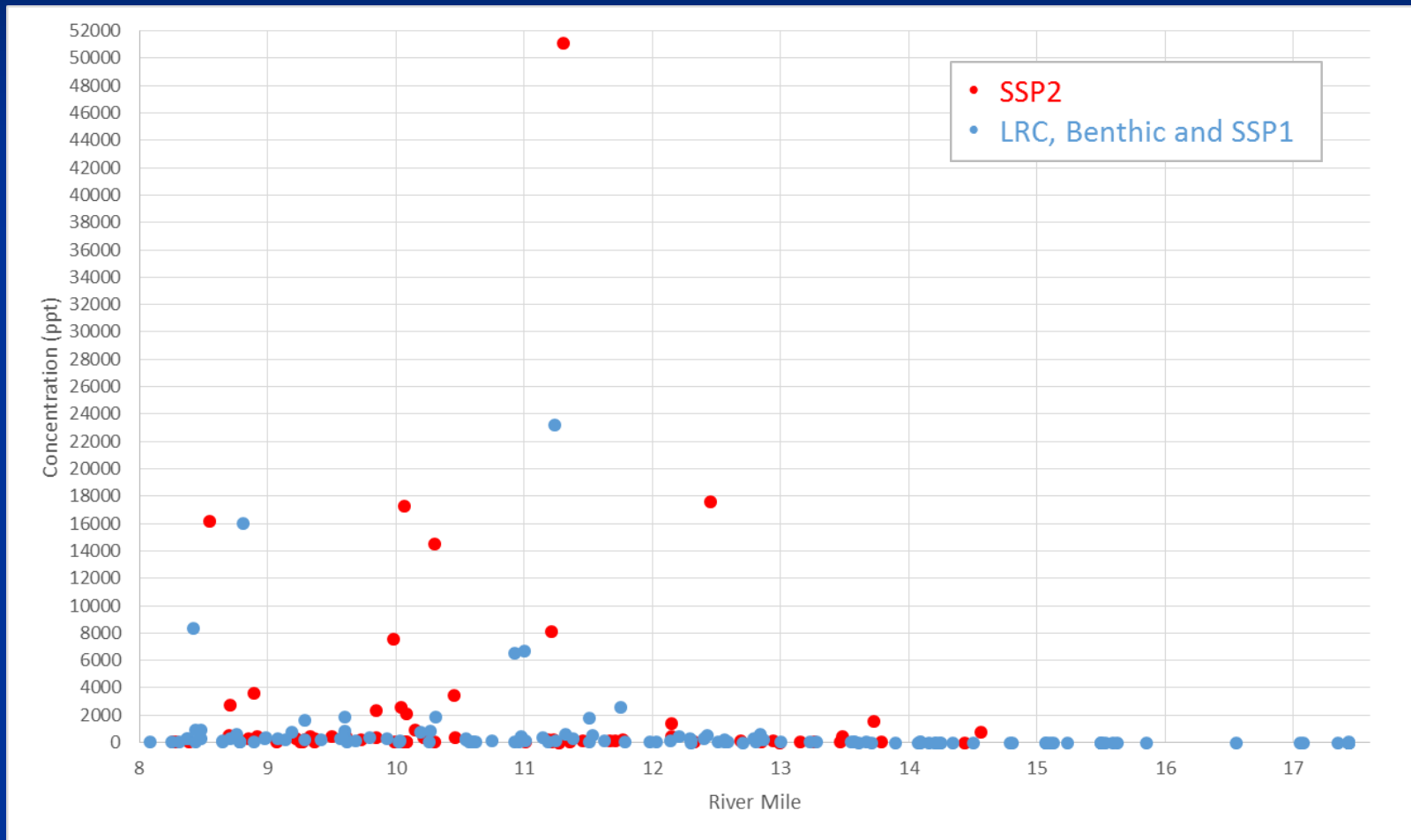
# SSP2 2,3,7,8-TCDD Surface Sediment Concentrations – Log Scale



# LRC, Benthic, SSP1 and SSP2 Programs

## 2,3,7,8-TCDD Surface Sediment Concentrations

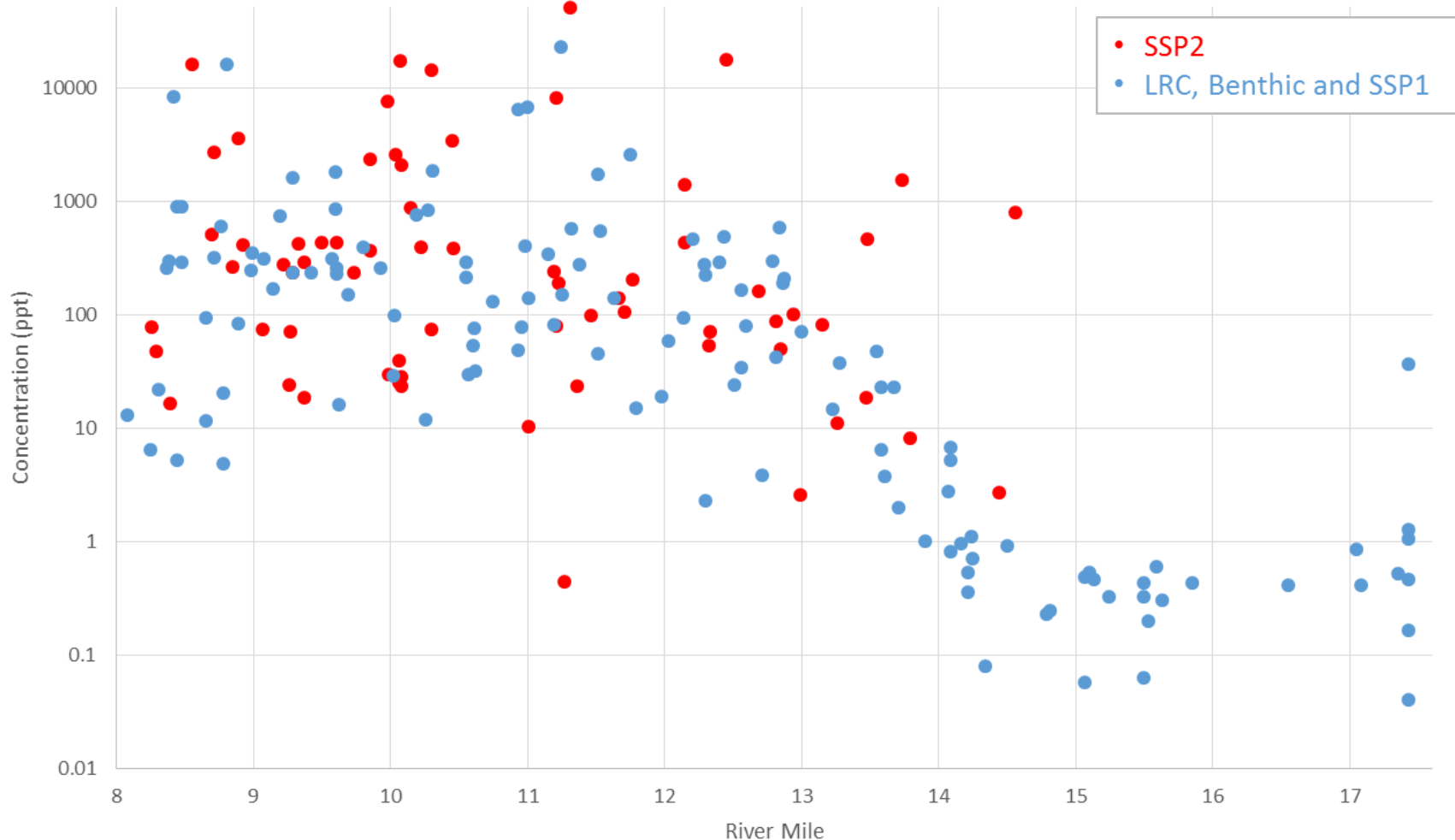
### Above RM 8 – Linear Scale



# LRC, Benthic, SSP1 and SSP2 Programs

## 2,3,7,8-TCDD Surface Sediment Concentrations

### Above RM 8 – Log Scale



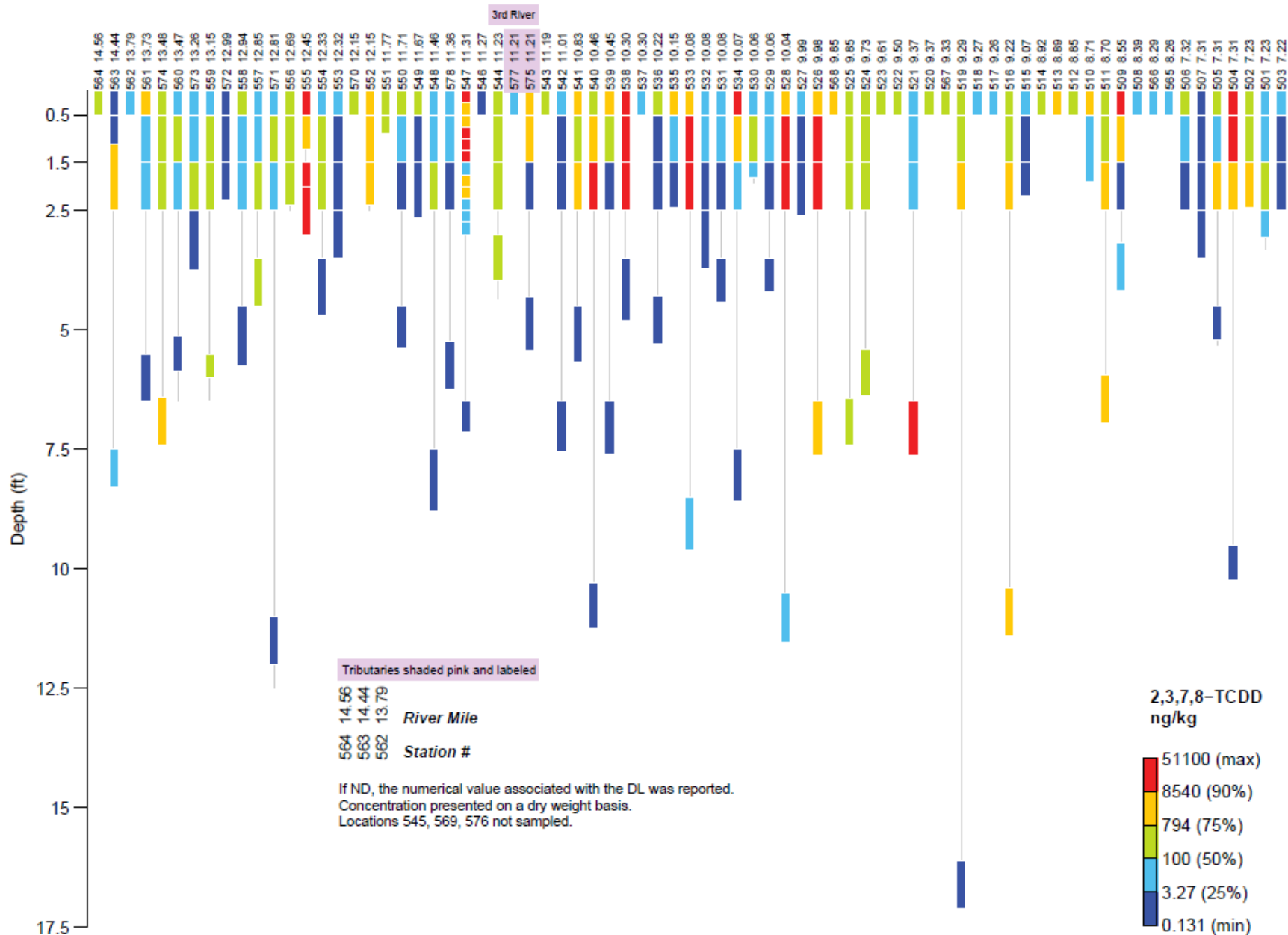


Figure 3-4.a Profiles of LRC SSP2 Core Data By River Mile and Depth: 2,3,7,8-TCDD



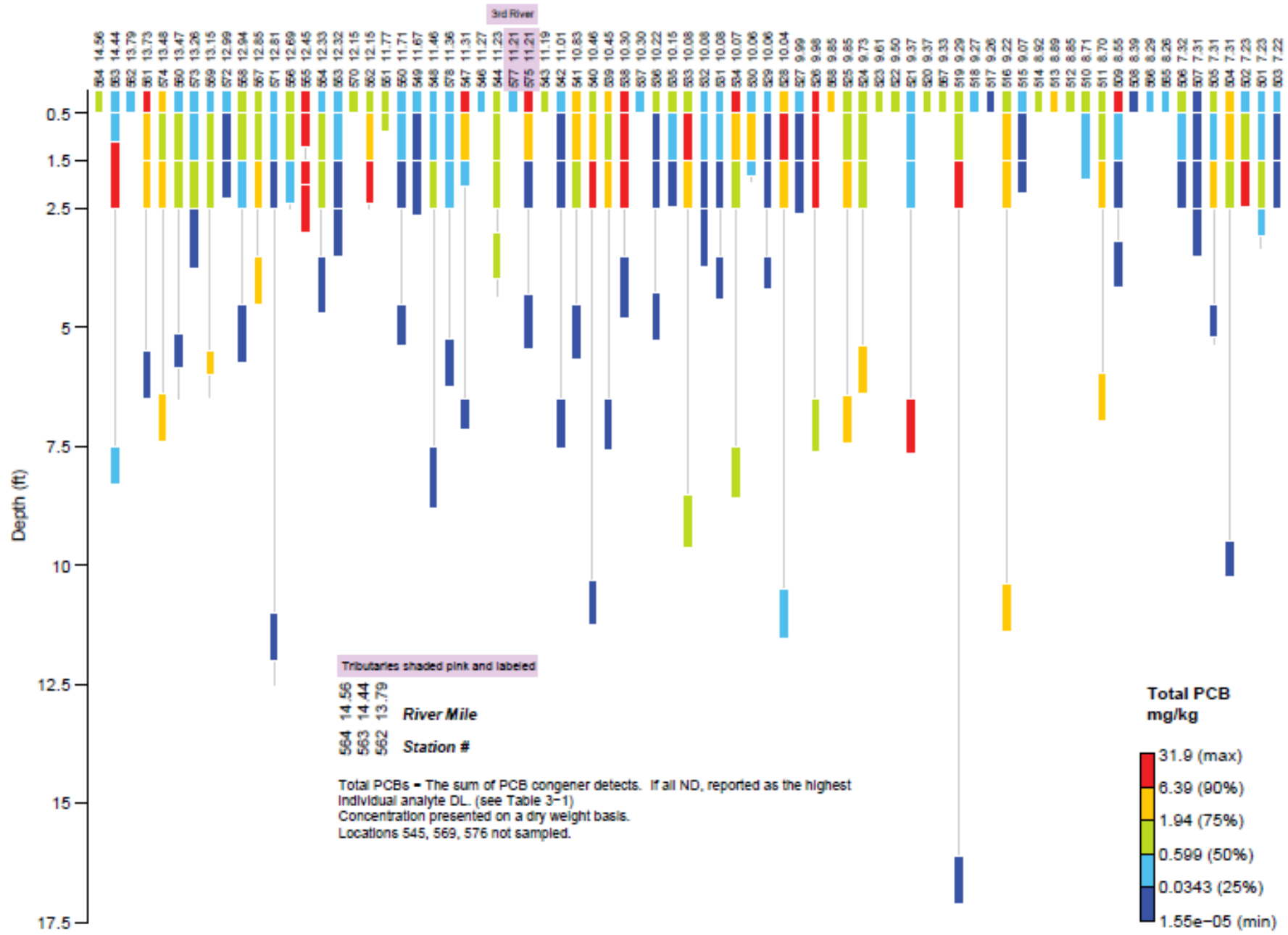


Figure 3-4.c Profiles of LRC SSP2 Core Data By River Mile and Depth: Total PCB

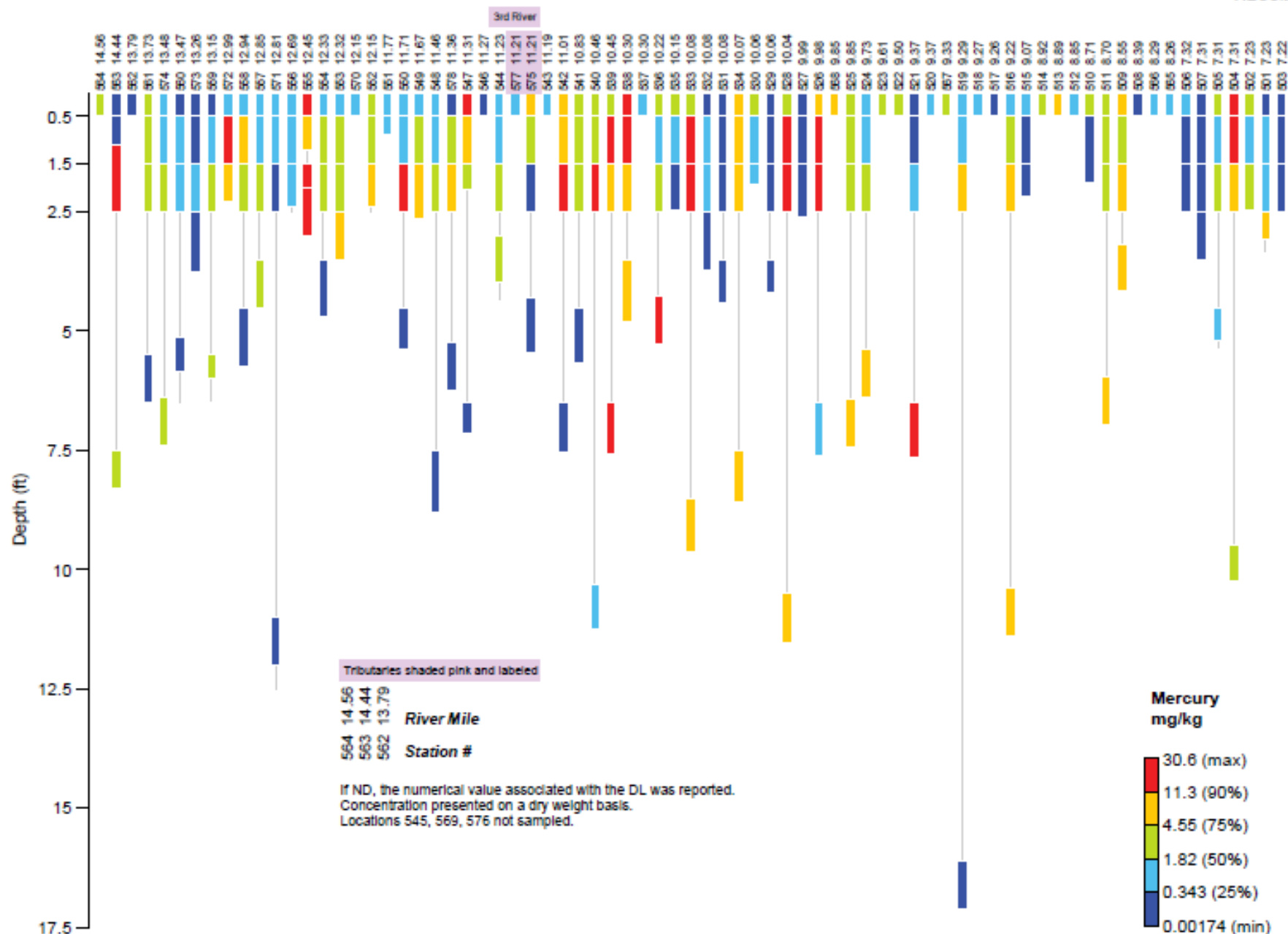


Figure 3-4.i Profiles of LRC SSP2 Core Data By River Mile and Depth: Mercury

# Thank You!

- Any questions?